

August 30, 1954

Dr. George Klein
Karolinska Institutet
Stockholm, Sweden

My dear Klein:

For some time, I have been reading (with deep interest) the reports by Lettré on the role of "mitochondria" in the viability of ascites tumor cells. I am sure that you have followed this work more keenly than I could, and possibly you have even attempted to repeat some of the experiments. At any rate, you did such a good job on the Stasney—claims that I would welcome your comments.

The most striking claim is, of course, that ascites cells that have been damaged by washing with distilled water can be resuscitated by the addition of the cell granules. This kind of experiment would open new directions in genetic analysis, if Lettré's interpretations are correct. Unfortunately, despite the number of papers, the experimental details that are presented are so sketchy that I can scarcely make up my mind about it. What do you think?

Have you thought any more about the mechanism of the Stasney et al. story? I am a little uneasy that intact cells were not demonstrable, and it seems possible enough that some other organized structure, less than a cell but (on your evidence) more than a "gene" is concerned. It would have been interesting at least to determine whether DNA-ase could inactivate the preparations (as should be so at least on Stasney's theory, and might still be on this compromise).

To go back to Lettré, I was sorry to see no account of at least two additional experiments: resuscitation by nuclear fragments (in the light of his paper 10.) or by "mitochondria" from other cellular or specific sources.

Yours sincerely,

Jostua Lederberg
Professor of Genetics